

What is claimed is:

Sub A1 →

1. A projection type cathode ray tube comprising:
a main body comprising a panel on which at least phosphor is provided, the panel being formed in the inwardly curved form with a uniform thickness; and

a cooling system which has an opening facing the panel, and is filled with a cooling liquid for cooling the panel so that the cooling system makes contact with the panel through the opening.

2. A projection type cathode ray tube as claimed in claim 1, wherein the panel is mounted on the front surface of the panel with a sealing member in between, and only a portion of the panel which contacts the sealing member is polished.

Sub A2 →

3. A projection type cathode ray tube as claimed in claim 2, wherein polishing is performed using an abrasive containing cerium oxide.

4. A projection type cathode ray tube as claimed in claim 2, wherein the peripheral portion of the outer surface of the panel is a substantially planar surface.

5. A projection type cathode ray tube as claimed in claim 1, wherein the sealing member is an adhesive containing silicone resin.

6. A projection type cathode ray tube as claimed in claim 5, wherein the adhesive contains silicone rubber.

7. A projection type cathode ray tube as claimed in claim 1, wherein the cooling system has another opening which is at the position facing the opening and is blocked by a lens mounted on the cooling system.

8. A projection type cathode ray tube as claimed in claim 7, wherein the lens is mounted on the cooling system with an O ring in between.

9. A projection type cathode ray tube as claimed in claim 1, wherein the cooling liquid held in the cooling liquid holder is a clear liquid having a refractive index substantially equal to the refractive index of the panel.

10. A projection type cathode ray tube as claimed in claim 9, wherein the clear liquid is a mixed solution of ethylene glycol and glycerin.